



# University of Hawaii at Manoa

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## SUGGESTED RECONSIDERATION OF KAIMU BEACH DECISION

Statement for Environmental Council Meeting  
5 December 1974

By Doak C. Cox

Jointly with the Corps of Engineers we are submitting recommendations for the enlargement, replenishment, and conditional protection of Kaimu Beach, if alterations of the beach are to be undertaken. In brief, this statement, submitted by the Environmental Center alone, suggests that the Council reconsider its 1 June 1973 decision that the Kaimu project should be undertaken because:

1. The remnant of Kaimu beach, if left in its natural state will continue to attract visitors, and the proposed project would result in the loss of subjective values peculiar to the beach in its natural state.

2. It has not been demonstrated that the beach use and swimming benefits that would be achieved by enlarging the beach could not be achieved at some alternative site.

3. The construction of the breakwater would result in a loss of scenic attractiveness to the bay and losses of subjective as well as objective values associated with the surfing activities.

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The following members of the University community have participated in the preparation and review of this statement:

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The statement does not reflect an institutional position of the University.

As judged by conventional means of economic analysis the proposed Kaimu Beach project is appropriate. As calculated by the Corps of Engineers the benefit/cost ratio is 1.3 if no breakwater is built and 1.7 if a breakwater is built. Among the benefits, the two largest are sightseeing and swimming.

The sightseeing benefit, \$74,100 per year, is estimated on the basis of two assumptions:

- 1) If no alteration were undertaken no sightseers would visit Kaimu Beach after 1990 because, by then, the strip of famous black sand would be nearly gone; and
- 2) If the beach is enlarged, sightseers ranging in number per year from 500,000 in 1990 to 1,300,000 in 2023 would continue to visit the beach.

We suggest that Kaimu Beach is not the only feature that leads visitors to the southeast coast of Puna and that the fame of the black sand will continue to lead such visitors to stop at Kaimu even if the beach is reduced to a narrow and discontinuous strip of sand.

The Kumukahi sand to be used to enlarge the beach will appear distinctly greenish because of its olivine content. The crushed lava that will have to be used for beach replenishment, after the Kumukahi sand is exhausted, whether or not the breakwater is constructed, will appear grey, particularly where it is dry. It seems quite problematical whether a beach differing in color from the original beach will attract additional sightseers, even if it is enlarged.

If the enlarged beach will attract additional visitors regardless of its color, two questions that should be addressed are: 1) whether there is something peculiar to the Kaimu site that will add to the attraction; and 2) whether there is an alternative site at which the beach might be constructed that might similarly attract visitors. The same two questions pertain to the swimming benefit that is estimated. This benefit, the largest identified by the Corps, now estimated at \$121,000 per year, will accrue only if a breakwater is constructed.

As is appropriate, the benefits of the Kaimu project estimated by the Corps are public benefits. Additional substantial benefits will accrue to the owners of land nearby. Construction and protection of a beach at an alternative site might be expected to provide similar private benefits, though the beneficiaries would probably be different.

So far as we are aware, no investigation of alternative sites for beach construction and protection has been conducted. Construction specifically for recreation is not within the authority of the Corps, but the alternative is still one that should be investigated. As the Corp points out use of an alternative site would not reduce the erosion of the present Kaimu Beach.



Such incremental value as may accrue to the enlarged Kaimu Beach because of the historical fame of the site, even if the beach does not completely resemble the natural one, is not objectively estimable. Other values not objectively estimable are the increment attached to the beach in its natural state because of its unusual origin, the increment attached to the scenic attraction of the site that would be lost by the construction of the breakwater, even if the breakwater is submerged, and the increment attached to the surfing and surfing-watching because of their traditional significance. The Corps estimate of \$11,000 per year loss in surfing benefits if the breakwater is constructed makes no allowance for this last incremental value.

Preservation of natural and historical states is not often, by itself, an adequate aim of a public project, but it is appropriate that the values people attach to such states be taken into account in planning projects and determining whether they should be undertaken, no matter how subjective such values may be.